BREWING TECHNOLOGY
- UNDERGRADUATE CERTIFICATE

College of Applied and Technical Studies
www.kent.edu/cats

About This Program
The Brewing Technology undergraduate certificate provides students with the practical experience and the technology skills of brewing. The certificate emphasizes the science of brewing and includes hands-on field experience and laboratory work at local breweries.

Contact Information
• cats@kent.edu | 330-672-2864
• Speak with an Advisor
• Chat with an Admissions Counselor

Program Delivery
• Delivery:
  • In person
  • Mostly online
• Location:
  • Ashtabula

Examples of Possible Careers and Salaries*
Agricultural and food science technicians
• 4.1% about as fast as the average
• 24,200 number of jobs
• $41,970 potential earnings

Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders
• 3.5% about as fast as the average
• 53,100 number of jobs
• $43,100 potential earnings

* Source of occupation titles and labor data comes from the U.S. Bureau of Labor Statistics’ Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

Admission Requirements
The university affirmatively strives to provide educational opportunities and access to students with varied backgrounds, those with special talents and adult students who graduated from high school three or more years ago.

Kent State campuses at Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas, and the Twinsburg Academic Center, have open enrollment admission for students who hold a high school diploma, GED or equivalent.

Some programs may require that students meet certain requirements before progressing through the program. For programs with progression requirements, the information is shown on the Coursework tab.

For more information on admissions, contact the Regional Campuses admissions offices.

NOTE: Certain courses in the certificate require students to be at least 21 years old.

Program Requirements
Certificate Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>ENOL 14810</td>
<td>WINERY AND BREWERY SANITATION</td>
<td>3</td>
</tr>
<tr>
<td>ENOL 21010</td>
<td>INTRODUCTION TO WINE AND BEER MICROORGANISMS</td>
<td>3</td>
</tr>
<tr>
<td>VIN 10510</td>
<td>MOLECULAR PRINCIPLES IN WINE AND BEER</td>
<td>4</td>
</tr>
<tr>
<td>VIN 11800</td>
<td>INTRODUCTION TO BREWING</td>
<td>3</td>
</tr>
<tr>
<td>VIN 14000</td>
<td>INTERMEDIATE BREWING</td>
<td>3</td>
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<tr>
<td>VIN 24000</td>
<td>SENSORY EVALUATION OF BEER</td>
<td>3</td>
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<tr>
<td>VIN 28992</td>
<td>BREWERY PRODUCTION FIELD EXPERIENCE (ELR)</td>
<td>2</td>
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</tbody>
</table>

Minimum Total Credit Hours: 21

Graduation Requirements
Minimum Certificate GPA | Minimum Overall GPA
-------------------------|------------------------
2.000                    | 2.000                  

Roadmap
This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester One
VIN 10510 MOLECULAR PRINCIPLES IN WINE AND BEER 4
VIN 11800 INTRODUCTION TO BREWING 3
Credit Hours 7

Semester Two
ENOL 21010 INTRODUCTION TO WINE AND BEER MICROORGANISMS 3
VIN 14000 INTERMEDIATE BREWING 3
Credit Hours 6

Semester Three
ENOL 14810 WINERY AND BREWERY SANITATION 3
VIN 24000 SENSORY EVALUATION OF BEER 3
Credit Hours 6

Semester Four
VIN 28992 BREWERY PRODUCTION FIELD EXPERIENCE (ELR) 2
Credit Hours 2

Minimum Total Credit Hours: 21
Program Learning Outcomes
Graduates of this program will be able to:

1. Produce beer according to commercial industry standards.
2. Perform chemical analysis of beer.
3. Perform lab tests to identify microbiological components of yeast and beer, troubleshooting potential quality and sanitation issues.
4. Analyze sensory characteristics of beer.
5. Use commercial brewing equipment.
6. Communicate effectively with professionals in the brewing industry.